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Mano et al. patent fails to describe a portion of the channel region 302a concaved or convexed in a channel width direction, where the channel width direction is parallel to a plane of the substrate, the Examiner asserts that the channel region of Mano et al. "is obviously a three dimensional object, and the concave portion is not just a single curve line in the channel region 302. Therefore, it cannot be said that the channel region in the reference is only concaved in the length direction" (see page 6, lines 1-4). The Examiner next refers to a parabola, which is depicted on page 7 of the Office Action. It is respectfully submitted, however, that the depicted parabola is not relevant to the shape shown in Figure 6e of the Mano et al. patent. Indeed, Mano et al. shows only the channel in cross-section and does not show or describe the three-dimensional shape of the channel region or a mask pattern for etching the channel region. There is simply nothing whatsoever in Mano et al. that would have implied any correspondence of the channel shape to the shape of a parabola. As such, the Examiner's assertions in the regard are not supported in the Mano et al. patent.

With respect to claim 14, notwithstanding the fact that Mano et al. does not mention, or in any way imply a correspondence between the shape of the channel 302a and a parabola, as pointed out above, the Examiner's interpretation of "channel width direction" is not consistent with the plain meaning this term has in the art. MPEP §2111 instructs that during examination the examiner must give the claims their broadest *reasonable* meaning, and that such meaning must be as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification. Also see, *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-1028 (Fed Cir. 1997). In the present case, the term "channel width," has a particular meaning in the art. See, for example, S. M. Sze, Physics of Semiconductor Devices, Second Edition, 1981, pages 433-434, a copy of which is attached hereto. Since the term "channel width" has long been given a particular meaning in the art, one of ordinary skill in the art would not have given such an unreasonable interpretation of this term, such as the Examiner has with respect to claim 14.

With respect to feature recited in claims 11 and 12, "in a direction perpendicular to a channel length direction and parallel to a plane of the substrate," the Examiner appears to give this recitation a meaning that conflicts with his statement in the interview summary dated September 30, 2003. Specifically, the Examiner stated in the interview summary,

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"Therefore, the claims should be amended to specify that the channel width direction is *parallel to the plane of the underlying substrate*" (emphasis added). See, paper no. 93003. It is respectfully requested that the Examiner provide further clarification as to why this feature as recited in the independent claims is currently being interpreted different from what the Examiner previously suggested. Further clarification also is requested with regard to the alleged "horizontal plane" of Mano et al. characterized by the Examiner with respect to claims 15 and 16. That is, how is the "horizontal plane extending along the substrate" mentioned on page 3, lines 8 and 14 of the Action parallel with an "axis extending from the top to the bottom of the figure."

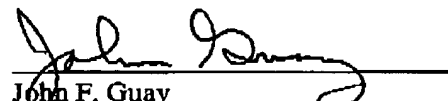
Moreover, it is not clear how the channel direction in Mano et al. alleged to meet the recitation could be both convexed as recited in claims 11 and 15, and concaved as recited in claims 12 and 16, in a direction "along an axis extending from the top to the bottom of the figure," as asserted on pages 3 and 4 of the Office Action with respect to these claims.

For at least these reasons, it is respectfully submitted that the rejections under Section 102 and 103 are believed improper. As such, Applicants request that the rejections of all independent claims 1-3 and 11-16 be withdrawn.

The dependent claims are allowable at least for the same reasons discussed above with regard to their respective independent claims as well as for reasons of their own.

It is respectfully submitted that the present application is in condition for allowance. Prompt notification of the same is earnestly sought.

Respectfully submitted,


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